



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW307A BYPASS RATIO: 4.2
 UNIQUE ID NUMBER: 8PW091 PRESSURE RATIO (π_{00}): 20.2
 COMBUSTOR: TALON II
 ENGINE TYPE: MTF RATED THRUST (F_{00}) (kN): 28.5

REGULATORY DATA **** DATA SUPERSEDED ** SEE FOLLOWING UID FOR REVISED DATA: 16PW114**

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	8.2	90.3	42.9	2.1
AS % OF ORIGINAL LIMIT	41.8	76.5	53.3	6.3
AS % OF CAEP/2 LIMIT (NO _x)			66.7	
AS % OF CAEP/4 LIMIT (NO _x)			67.1	
AS % OF CAEP/6 LIMIT (NO _x)			67.3	
AS % OF CAEP/8 LIMIT (NO _x)			71.0	

DATA STATUS

- PRE-REGULATION
 - CERTIFICATION
 x REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.329	0.00	0.23	17.54	0.4
CLIMB OUT	85	2.2	0.274	0.00	0.23	15.31	0.4
APPROACH	30	4.0	0.102	0.00	2.46	8.39	0.0
IDLE	7	26.0	0.045	2.89	33.07	2.20	1.9
LTO TOTAL FUEL (kg) or EMISSIONS (g)			144	202	2378	1155	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				7.1	83.5	40.5	1.9
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.7	1.6	0.7	0.4
RANGE (D _p /F ₀₀ in g/kN, or SN)				6.4-8	81.8-85.7	39.7-41.3	1.5-2.4

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99.3-100.9
TEMPERATURE (K)	265-280
ABS HUMIDITY (kg/kg)	0.0017-0.0065

FUEL

SPEC	Jet A-1
H/C	1.86-1.89
AROM (%)	17.4-22.5

MANUFACTURER: Pratt & Whitney Canada
 TEST ORGANIZATION: PW307 Development Engineering
 TEST LOCATION: Mississauga, Ontario, Canada
 TEST DATES: 28/12/2004-27/02/2005

REMARKS

1. P&WC ER 5606
2. Engines tested: E9812/12, CH0010/01, CH0011/01
3. Post Type-Certification combustor
4. All engines entering revenue service incorporate this combustor design standard
5. Defined by P&WC Engineering Change D5054

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)